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BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Paper No. 25

Application Number: 09/182,825
Filing Date: October 29, 1998
Appellant(s): TEN KATE, WARNER R.T.

Anne E. Barschall
For Appellant

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EXAMINER'S ANSWER

Technology Center 2100

This is in response to the appeal brief filed March 3, 2004.

(1)   *Real Party in Interest*

A statement identifying the real party in interest is contained in the brief.

(2)   *Related Appeals and Interferences*

A statement identifying the related appeals and interferences which will directly

affect or be directly affected by or have a bearing on the decision in the pending appeal

is contained in the brief.

(3)   *Status of Claims*

The statement of the status of the claims contained in the brief is correct.

(4)   *Status of Amendments After Final*

The appellant's statement of the status of amendments after final rejection

contained in the brief is correct.

(5)   *Summary of Invention*

The summary of invention contained in the brief is correct.

(6)   *Issues*

The appellant's statement of the issues in the brief is correct.

(7)   *Grouping of Claims*

The rejection of claims 28-44 stand or fall together because appellant's brief does

not include a statement that this grouping of claims does not stand or fall together and

reasons in support thereof. See 37 CFR 1.192(c)(7).

(8)   *Claims Appealed*

The copy of the appealed claims contained in the Appendix to the brief is correct.

(9)   *Prior Art of Record*

5,892,507   MOORBY ET AL   4-1999

5,680,619   GUDMUNDSON ET AL   10-1997

(10)   *Grounds of Rejection*

The following ground(s) of rejection are applicable to the appealed claims:

DETAILED ACTION

This action is responsive to communications: Request for reconsideration filed on July 15, 2003 to the application, filed on 10/29/1998.

Claims 28-44 are pending in the case. Claims 28, 35, 36, 37 and 43 are independent claims.

Priority

Receipt is acknowledged of papers submitted under 35 U.S.C. § 119, which papers have been placed of record in the file.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 28-34 remain rejected under 35 U.S.C. § 101 as being directed to non-statutory subject matter.

The claims are not directed to statutory subject matter because the claimed subject matter:

(1)   does not fall within one of the four statutory classes of inventions under § 101; and/or

(2)   falls within the mere idea or abstract intellectual concept exception to §

101; and/or

(3)   falls, by analogy, within the printed matter exception to § 101.

The claimed "data structure" is <u>non-functional data structure</u> which is considered

non-statutory subject matter by analogy to the "printed matter" exception under § 101.

See <u>In re Miller</u>, 164 USPQ 46, 49 (CCPA 1969). Like printed matter, a data structure,

in and of itself, is merely an arrangement of data and nothing more. Furthermore,

claims drawn to printed matter may be non-statutory even though the claims recite the

structure on which the printed matter is printed:

> The *mere arrangement* of printed matter on a sheet or sheets of paper, in
>
> book form or otherwise, does not constitute "any new and useful art,
>
> machine, manufacture, or composition of matter," or "any new and useful
>
> improvements thereof," as provided in section 4886, of the Revised
>
> Statutes [the predecessor to 35 U.S.C. § 101].

(emphasis in original). <u>In re Russell</u>, 9 USPQ 181, 182 (CCPA 1931). At best, the

claims as a whole describe a data structure stored in a computer system. Accordingly,

like printed matter "stored" on a sheet of paper, a data structure stored in a computer

system fails to present statutory subject matter.

The claims recite the limitations directed to describing attributes of the "coded

presentation", "sub-presentation", etc. These representations are merely the

descriptions of multimedia data, which are "non functional" data structures . The claims

do not recite any limitations of "manipulating" the data structures to achieve "practical

application." Therefore, the claimed recitations of describing these representations are

merely "non functional" data structures, which are not statutory. Although the sub-

presentation program segment is embodied on a "computer readable medium", the sub-

presentation program segment only contains non-functional data structures such as

"play-out specification", "reference timing", etc. In order to make the claim as a whole

statutory, the computer readable medium must also contain functional data structures,

for example, "instructions for playing out the sub-presentation using the playout-

specification." Without such functional data structures, the current claims basically

claim a computer readable medium containing timing data.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. § 102

that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(e) the invention was described in a patent granted on an application for patent

by another filed in the United States before the invention thereof by the applicant

for patent, or on an international application by another who has fulfilled the

requirements of paragraphs (1), (2), and (4) of section 371© of this title before

the invention thereof by the applicant for patent.

Claims 28-32, 34-40 and 42 remain rejected under 35 U.S.C. 102(e) as being

anticipated by Moorby et al., U.S. Pat. No. 5,892,507, 4/99 (filed on 4/6/95).

As per Claims 28-32, 34-40 and 42, Moorby teaches the use of a sub-

presentation which comprises a plurality of sequence of presentation (FIG.11a-11c),

wherein the sequence of presentation are presented one after the other, and

simultaneously with respect to each other (FIG.12a; col.12, lines 7-35), wherein the start

and duration are also specified (col.11, lines 45-55, "...the length of a TimeLine track

and the Icons along it depict the duration..."), and further shows that the interface of the sub-presentation provides a time references (see FIG.12b).

Moorby further teaches that the sub-presentation provides a sub-presentation priority specifying a priority with respect to presenting the subpresentation (FIG.1 shows the priority direction of the sub-presentations along the storyline).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103© and potential 35 U.S.C. 102(f) or (g) prior art under 35 U.S.C. 103(a).

Claims 33 and 41 remain and 43 and 44 remain rejected under 35 U.S.C. 103(a) as being unpatentable over Moorby et al. in view of Gudmundson et al., U.S. Pat. No 5,680,619, 10/97 (filed 4/95).

As per dependent claims 33 and 41, Moorby does not explicitly teach that the play-out specification includes a location specification specifying a location of the presentation element when presented and wherein interface of the sub-presentation provides a location frame of reference relative to which the location specification for the presentation element is specified. This feature, however, is shown by Gudmundson. Like, Moorby, Gudmundson also teaches authoring the multimedia presentation using the sub-presentation groups, called "containers"(col.8, lines 25-67). Note that within a container includes the sequence of presentations, and also contains the location attributes (e.g., FIG.16(c)) , all of which are interfaced by the container's object interface (col.16, lines 53+). It would have been obvious to a person of ordinary skill in the art at the time the invention was made to have incorporated Gudmundson's feature into Moorby, since a person of ordinary skill would have appreciated that would have provide a user of the Moorby's editor the ability to edit the layout information in addition to the timing information.

As per independent claim 43, Moorby teaches the use of a sub-presentation which comprises a plurality of sequence of presentation (FIG.11a-11c), wherein the sequence of presentation are presented one after the other, and simultaneously with respect to each other (FIG.12a; col.12, lines 7-35), wherein the start and duration are also specified (col.11, lines 45-55, "...the length of a TimeLine track and the Icons along it depict the duration..."), and further shows that the interface of the sub-presentation provides a time references (see FIG.12b). Moorby further teaches that step of

accessing a medium, readable by the device and on which the coded multi-media presentation is stored (col.2, lines 34-36, showing the Windows-based computer implementation).

However, Moorby does not appear to explicitly teach the use of a self-contained, sub-presentation data structures, and using the structure for retrieving at least one play-out specification portion from a first location in the data structure, which play-out specification portion specifies timing behavior of at least one respective presentation element within the data structure; and responsive to the play-out specification, retrieving the at least one respective presentation element from a second location in the data structure. In other words, Moorby's presentation elements provide the playout specification including the timing information, but Moorby does not appear to disclose that the playout specification and the playout elements are necessarily encapsulated in a self-contained data structure. Nevertheless, the use of the self-contained data structure for storing and accessing the presentation elements are well known as evidenced by Gudmundson. Like, Moorby, Gudmundson also teaches authoring the multimedia presentation using the sub-presentation groups, called "containers"(col.8, lines 25-67). Note that within a container includes the sequence of presentations, and also contains the location attributes (e.g., FIG.16(c)) , all of which are interfaced by the container's object interface (col.16, lines 53+). Therefore, Gudmundson's object container (col.8, line 28) discloses the use of the self-contained data structures. It would have been obvious to a person of ordinary skill in the art at the time the invention was made to have incorporated Gudmundson's feature into Moorby, since a person of ordinary skill would have appreciated that would have provide a user of the Moorby's editor the ability to edit the layout information in addition to the timing information.

As per dependent claim 43, which depends on claim 42, Moorby in view of

Gudmundson discloses that the sub-sub-presentation data structure comprising at least

one play-out specification sub-sub-structure and a plurality of presentation element sub-

sub-structures, since Gudmundson teaches that the "Hierarchical Encapsulation" (col.8,

line 27) is being used for the object containers storing the multimedia playout data.

Therefore, Gudmundson teaches the use of sub-sub data structures under the hierarchy

of the sub-data structures for the multimedia presentation.

(11)   Response to Argument

Pages 3-6 of the brief argues the examiner's rejection of claims 28-34 under 35

USC 101 as being non statutory. As explained in the rejections above, Examiner

pointed out the limitations in claims 28-34 are directed to non functional data structure,

and therefore, are not statutory. The MPEP Section 2106 (Patentable Subject Matter —

Computer-Related Inventions) explains the non functional data structure in the following

way.

> Claims to computer-related inventions that are clearly nonstatutory fall into the same
> general categories as nonstatutory claims in other arts, namely natural phenomena such as
> magnetism, and abstract ideas or laws of nature which constitute "descriptive material."
> Abstract ideas, Warmerdam, 33 F.3d at 1360, 31 USPQ2d at 1759, or the mere
> manipulation of abstract ideas, Schrader, 22 F.3d at 292-93, 30 USPQ2d at 1457-58,
> are not patentable. Descriptive material can be characterized as either "functional
> descriptive material" or "nonfunctional descriptive material." In this context, "functional
> descriptive material" consists of data structures and computer programs which impart
> functionality when employed as a computer component. (The definition of "data
> structure" is "a physical or logical relationship among data elements, designed to support
> specific data manipulation functions." The New IEEE Standard Dictionary of Electrical
> and Electronics Terms 308 (5th ed. 1993).) "Nonfunctional descriptive material"
> includes but is not limited to music, literary works and a compilation or mere arrangement
> of data.
> Both types of "descriptive material" are nonstatutory when claimed as descriptive
> material per se. Warmerdam, 33 F.3d at 1360, 31 USPQ2d at 1759. When functional
> descriptive material is recorded on some computer-readable medium it becomes
> structurally and functionally interrelated to the medium and will be statutory in most cases
> since use of technology permits the function of the descriptive material to be realized.
> Compare In re Lowry, 32 F.3d 1579, 1583-84, 32 USPQ2d 1031, 1035 (Fed. Cir.

1994) (claim to data structure stored on a computer readable medium that increases
computer efficiency held statutory) and Warmerdam, 33 F.3d at 1360-61, 31 USPQ2d
at 1759 (claim to computer having a specific data structure stored in memory held
statutory product-by-process claim) with Warmerdam, 33 F.3d at 1361, 31 USPQ2d
at 1760 (claim to a data structure per se held nonstatutory). When nonfunctional
descriptive material is recorded on some computer-readable medium, it is not statutory
since no requisite functionality is present to satisfy the practical application requirement.
Merely claiming nonfunctional descriptive material stored in a computer-readable medium
does not make it statutory. Such a result would exalt form over substance. In re Sarkar,
588 F.2d 1330, 1333, 200 USPQ 132, 137 (CCPA 1978) ("[E]ach invention must be
evaluated as claimed; yet semantogenic considerations preclude a determination based
solely on words appearing in the claims. In the final analysis under 101, the claimed
invention, as a whole, must be evaluated for what it is.") (quoted with approval in Abele,
684 F.2d at 907, 214 USPQ at 687). See also In re Johnson, 589 F.2d 1070, 1077,
200 USPQ 199, 206 (CCPA 1978) ("form of the claim is often an exercise in drafting").
Thus, <u>nonstatutory music is not a computer component and it does not become statutory
by merely recording it on a compact disk. Protection for this type of work is provided
under the copyright law</u>.

Here MPEP gives a good example, noting that "nonstatutory music ...does not become
statutory by merely recording it on a compact disk." Similarly, the Appellant's claimed
"presentation element with a play-out specification" is no different from a musical note
with its playout specification (i.e., duration, how high the note is, etc). Throughout the
argument, Appellant cites the Lowry's case, 32 USPQ 2d at 1034 to argue that the
Appellant's claimed limitations are statutory as that of Lowry. However, there is simply
no merits to the argument. Appellant's claims do not claim any specific physical
relationships between information in memory and/or dictates how application programs
manage information and/or defines functional characteristics of memory. All the
claimed limitations cite is merely that certain data are stored in memory. On page 5, for
example, Appellant argues that the limitations of claim 30, "the sub-presentation
program segment comprises a group of presentation elements which are programmed
to be presented simultaneously with respect to each other" represents physical
interrelationship in memory with dictions of functioning of application programs.
Examiner disagrees. The limitation basically reiterates characteristics of data stored in
the memory. Certainly, it would be no difficult than a set of musical notes (such as in

MPEP example) that are stored in CD-ROM disk and are programmed to be played simultaneously.

On page 7 to 17, Appellant argues with respect to the rejection of claims under 35 USC 102 and 35 USC 103a. On page 8, regarding the rejection of claim 28, Appellant argues that "Mooby fails to teach or suggest any specific structures stored within a computer readable medium. The Examiner contends that the figures in Moorby illustrates such structures, gut that is simply not the case. The figure show image on a screen which might correspond to any structure in memory. Moreover, the screen itself cannot be considered the relevant medium, because presentation elements and timing references themselves are not in the screen icon. The must be calculated or retrieved elsewhere." As examiner pointed out repeatedly in the previously office action, Moorby graphically shows how the presentation segments are synchronized. The icons of Moorby shows the timing specification of the presentation media stored in the computer memory. Therefore, Moorby clearly teaches the presentation segments stored in a way to be playout in the timing specification as graphically illustrated by the icons.
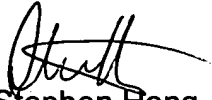
Appellant somehow appears to continue making the argument as if the graphical displays of Moorby must be able to store the data on the graphic itself. It seems that the Applicant does not quite understand the relationship of displays with respect to the data stored in a computer. Firstly, Applicant should recognize that whatever displayed on the screen is not the whole data - rather, it is a <u>visual representation</u> of the data. For example, just because a letter "A" is displayed on screen, that does not just mean that the computer storage has only "A" stored. If fact, what is stored can be a complex equation dictating how "A" needs to be drawn on the display. Now, Applicant continues to make the argument that the icons (for example), showing the playout relationship in Moorby, are not the actual "image" to be displayed during the playout. Examiner is not

arguing that. However, Applicant is misconstruing the Moorby reference by saying that the "icons" are the only things that are stored in the computer of Moorby. Rather, Moorby's storage contains both the actual playout data along with the playout specification (col.2, line 2, "customize the story's content and structure"). The icons just happen to be a visual indication of the stored data. Since the Moorby's storage contains both the playout data and the playout specification indicating how the presentation element is to be played", the claimed limitations are clearly met. Furthermore, "indicating how the presentation element is to by played" does not at all have to be a complex relationship. In fact, a color image containing the specification of the indication of the colors of its image is an "indication of how the presentation element is to be played." Even further, there is no clearly claimed boundary as to what the "playout element" cannot have. That is, any set of program segments of data that contains both the playout media and an indication of how the media is to be presented can be a playout element.

Therefore, the Appellant's argument that Moorby lacks the "specific structures within a medium (page 8, line 7 of Brief)" is not persuasive. There is no specific physical structures claimed. The claimed limitations do not claim specific structures, the limitations describe the stored data according to the attributes of the data..

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

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